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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/722,775	11/27/2000	Joseph Sirgedas		4902

7590

07/08/2003

WOOD, PHILLIPS, VAN SANTEN, CLARK & MORTIMER
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CHICAGO, IL 60661

EXAMINER

EDMONDSON, LYNNE RENEE

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 07/08/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/722,775

Applicant(s)

SIRGEDAS, JOSEPH

Examiner

Lynne Edmondson

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/16/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-11 and 13-21 is/are rejected.
- 7) ☒ Claim(s) 4 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 contradicts the base claim. The base claim teaches that the ring of material is moved before melting leaving no material in the first location. However, claim 2 teaches that the material melts before moving. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3, 5, 7, 9-11, 13, 15-17 and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Overy (GB 2092692 A).

Overy teaches a method of forming a meltable material at joint between telescopingly engaged male and female elements, said method comprising the steps of directing the male element (pipe 1) into the female element (pipe fitting 2), placing a ring

Art Unit: 1725

of meltable material (4) around the male element at a first location by sliding or rolling down, heating the elements while the ring is in the second position to melt the ring and sliding the material (by capillary action) between the elements from a first location to a second location. The joint solidifies on cooling (page 1, lines 79-108). The ring is a formed piece of solder wire with spaced ends (split ring, abstract). The ring is not placed fully within the female element and abuts the free edge (5) of the female element and thereby placed at a location at which no appreciable portion of the meltable material resides between radially facing portions of the members (figure 2). See also Overy claims 1-3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6, 8, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Overy (GB 2092692 A) in view of Frederick (GB 2126298 A).

Overy teaches a method of forming a meltable material at joint between telescopingly engaged male and female elements, said method comprising the steps of directing the male element (pipe 1) into the female element (pipe fitting 2), placing a ring of meltable material (4) around the male element at a first location by sliding or rolling

Art Unit: 1725

down, heating the elements while the ring is in the second position to melt the ring and sliding the material (by capillary action) between the elements from a first location to a second location. The joint solidifies on cooling (page 1, lines 79-108). The ring is a formed piece of solder wire with spaced ends (split ring, abstract). The ring is not placed fully within the female element and abuts the free edge (5) of the female element and thereby placed at a location at which no appreciable portion of the meltable material resides between radially facing portions of the members (figure 2). However, there is no disclosure of a ring comprising at least 330 degrees.

Frederick teaches a method of forming a meltable material which extends through at least 330 degrees (360 degrees, figure 3) at joint between telescopingly engaged male and female elements, said method comprising the steps of directing the male element (pipe 50) into the female element (pipe fitting 44), placing a ring of meltable material (54) around the male element at a first location (page 1 lines 89-108), moving the pipe into the fitting thereby moving the meltable material to a second location before melting, heating the elements to melt the ring and sliding the material between the elements (figures 1-3 and page 1 lines 108-128). The joint solidifies on cooling. The ring surrounds the pipe forming a circle (360 degrees). The ring is not placed fully within the female element and abuts the free edge (46) of the female element (figure 3). See also Frederick claim 1.

It would have been obvious to one of ordinary skill in the art at the time of the invention that a split ring is an obvious variation of a continuous ring and to employ a ring extending through at least 330 degrees to ensure a sufficient but not excessive

Art Unit: 1725

amount of solder for strong, reliable bonds (Overy, page 1, lines 18-26, lines 33-41 and lines 115-119).

Response to Arguments

2. Regarding applicant's argument against the 112 rejection, the prior office action has stated that the material melts before moving. Applicant's response (page 5) states that the meltable material is heated to a temperature at which the meltable material melts before the...meltable material is moved. The difference between these two statements is not clear. Claim 2 contradicts the base claim. The base claim teaches that the ring of material is moved before melting leaving no material in the first location. However, claim 2 teaches that the material melts before moving. Appropriate correction is required.

Therefore the 112 rejection of claim 2 stands.

3. Regarding applicant's argument that Overy teaches the meltable material fully placed within the female element, see figure 2 where the meltable material is placed in the large entry of the female element such that part of the material is in the funnel. There is no indication that the meltable element lies fully within that funnel at the external part of the bush. The term "in" teaches that at least part of the ring is inside the female element. Figure 2 shows that most of the ring is not within the element particularly when first placed around tube 1.

Art Unit: 1725

Therefore the 102 rejection of claims 1-3, 5, 7, 9-11, 13, 15-17 and 19-21 as anticipated by Overy stands.

4. Although it is possible to bend or wrap a wire material around a tube as a split ring, the conventional manner of application of a split ring is by sliding.

Therefore the 103 rejection of claims 4 and 12 as obvious over Overy is withdrawn.

5. Regarding applicant's argument that Frederick teaches a continuous ring but the ring is not described to cooperate with elements as recited in the claims from which claims 6, 8, 14 and 18 depend, it is not clear where this difference lies. The ring in Frederick is a meltable material placed around a male element and moved from one location to another to join a male and female element by heating to melt the ring.

Therefore the 103 rejection of claims 6, 8, 14 and 18 as obvious over Overy in view of Frederick stands.

Allowable Subject Matter

6. Claims 4 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art teaches the invention essentially as claimed but teaches a

Art Unit: 1725

conventional split ring which is typically placed by rolling or sliding over a tube. There is no disclosure of shaping, bending or wrapping of an elongate meltable member around a tube without placing most of the material within the female element when bonding telescopically engaged members. See Overy (GB 2092692 A).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Savitski et al. (US 2002/0100540 A1, not between elements, not telescoped), Safarevich et al. (USPN 6373024 B1, not between elements, abutment), Kent et al. (USPN 6446857, rta), Lack et al. (USPN 6264062 B1, entire portion between elements), Sixsmith (USPN 4958857, all between elements), Carter et al. (USPN 3784239, ring between elements), Kubota (JPN 10-238671 A), Hubbel (USPN 3639721, teaches conventional practice to push a solder ring from one location to another before melting), Dawson (USPN RE28457, threaded welding sleeve), Dolder et al. (EPN 0493316 A1), Zopfi (USPN 3998478, invention without melting), Lancien et al. (USPN 5796045), Chelette (USPN 4705307), and Belicic (USPN 3968982).

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Art Unit: 1725

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (703) 306-5699. The examiner can normally be reached on M-F from 7-4 with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (703) 308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-7115 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

Lynne Edmondson
Examiner
Art Unit 1725

LRE
June 26, 2003



M. ALEXANDRA ELVE
PRIMARY EXAMINER